

Appl. No.: 10/674,956

Preliminary Amdt. Dated April 6, 2005

### AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in this application.

1. (Currently Amended) An optical wave guide element having a substrate which has the electro-optic effect and an optical wave guide formed on the substrate, ~~characterized by~~ comprising:

a reflective means formed on a side of the substrate where an end of the optical wave guide is positioned; and

optical fiber connected to the substrate which is placed apart from the optical wave guide, wherein light waves that propagate between the reflective means and the optical fiber propagate within the substrate excluding the optical wave guide.

2. (Currently Amended) The optical wave guide element according to Claim 1, ~~characterized in that~~ wherein the optical fiber is connected to a side of the substrate where the reflective means is not formed, or to a bottom surface of the substrate.

3. (Currently Amended) The optical wave guide element according to Claim 1 ~~or 2~~, ~~characterized in that~~ wherein the propagation distance of light waves, ~~which~~ that propagate inside the substrate excluding the optical wave guide, is 200  $\mu\text{m}$  or less.

4. (Currently Amended) The optical wave guide element according to ~~any of Claims 1 to 3~~, ~~characterized in that the~~ Claim 1, wherein an angle formed between the a normal direction of the reflective means and the an optical axis of the optical wave guide that makes contact with the

reflective means is no smaller than ~~the~~ an angle of ~~the~~ total reflection of ~~the~~ light waves that are transmitted through the optical wave guide.

5. (Currently Amended) The optical wave guide element according to ~~any of Claims 1 to 4, characterized in that~~ Claim 1, wherein the reflective means ~~has~~ comprises a reflective film.

6. (Currently Amended) The optical wave guide element according to ~~any of Claims 1 to 3, characterized in that~~ Claim 1, wherein the reflective means separates ~~the~~ light waves transmitted from the optical wave guide side into transmitted light and reflected light so that the transmitted light is made to enter a light receiving element provided outside the substrate.

7. (Currently Amended) A method of manufacture for ~~of~~ the optical wave guide element according to ~~any of Claims 1 to 6, characterized in that the~~ Claim 1, comprising the step of determining a position where the substrate and the optical fiber are connected ~~is determined~~ while the light intensity of the light waves that propagate through the substrate excluding the optical wave guide is being detected.

8. (New) The optical wave guide element according to Claim 2, wherein the propagation distance of light waves that propagate inside the substrate excluding the optical wave guide, is 200  $\mu\text{m}$  or less.

9. (New) The optical wave guide element according to Claim 2, wherein an angle formed between a normal direction of the reflective means and an optical axis of the optical wave guide that makes contact with the reflective means is no smaller than an angle of total reflection of light waves that are transmitted through the optical wave guide.

10. (New) The optical wave guide element according to Claim 3, wherein an angle formed between a normal direction of the reflective means and an optical axis of the optical wave guide that makes contact with the reflective means is no smaller than an angle of total reflection of light waves that are transmitted through the optical wave guide.

11. (New) The optical wave guide element according to Claim 2, wherein the reflective means comprises a reflective film.

12. (New) The optical wave guide element according to Claim 3, wherein the reflective means comprises a reflective film.

13. (New) The optical wave guide element according to Claim 4, wherein the reflective means comprises a reflective film.

14. (New) The optical wave guide element according to Claim 2, wherein the reflective means separates light waves transmitted from the optical wave guide side into transmitted light and reflected light so that the transmitted light is made to enter a light receiving element provided outside the substrate.

15. (New) The optical wave guide element according to Claim 3, wherein the reflective means separates light waves transmitted from the optical wave guide side into transmitted light and reflected light so that the transmitted light is made to enter a light receiving element provided outside the substrate.

16. (New) A method of manufacture of the optical wave guide element according to Claim 2, comprising the step of determining a position where the substrate and the optical fiber are connected while the light intensity of the light waves that propagate through the substrate excluding the optical wave guide is being detected.

17. (New) A method of manufacture of the optical wave guide element according to Claim 3, comprising the step of determining a position where the substrate and the optical fiber are connected while the light intensity of the light waves that propagate through the substrate excluding the optical wave guide is being detected.

18. (New) A method of manufacture of the optical wave guide element according to Claim 4, comprising the step of determining a position where the substrate and the optical fiber are

connected while the light intensity of the light waves that propagate through the substrate excluding the optical wave guide is being detected.

19. (New) A method of manufacture of the optical wave guide element according to Claim 5, comprising the step of determining a position where the substrate and the optical fiber are connected while the light intensity of the light waves that propagate through the substrate excluding the optical wave guide is being detected.

20. (New) A method of manufacture of the optical wave guide element according to Claim 6, comprising the step of determining a position where the substrate and the optical fiber are connected while the light intensity of the light waves that propagate through the substrate excluding the optical wave guide is being detected.